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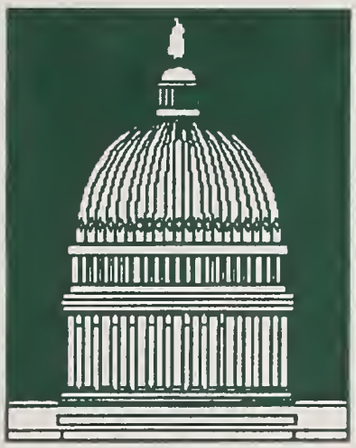

Federal Implementation Guideline for Electronic Data Interchange

ASC X12 003060 Transaction Set 841 Specifications/Technical Information (Request for Technical Information)

Implementation Convention

U.S. DEPARTMENT OF COMMERCE
Technology Administration
National Institute of
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Electronic Commerce Acquisition Program Management Office
Standard Management Committee - Secretariat
National Institute of Standards and Technology
Gaithersburg, MD 20899-0001

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U.S. DEPARTMENT OF COMMERCE
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Technology Administration
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Reports on Information Technology

The National Institute of Standards and Technology (NIST)'s Information Technology Laboratory (ITL) develops standards and guidelines, provides technical assistance, and conducts research for computers and resources. As part of the overall federal effort to establish a single face to industry for conducting electronic commerce, ITL has been designated as the organization responsible for coordinating the development of Federal Implementation Conventions (ICs) for Electronic Data Interchange (EDI). ICs are defined by functional-area experts who create and select options from standard EDI Transaction Sets to yield the implementations to be used for practical EDI. These ICs are made available to federal agencies and industry by electronic means and this Special Publication Series.

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841 Specifications/Technical Information

Functional Group ID=SP

Introduction:

This Draft Standard for Trial Use contains the format and establishes the data contents of the Specifications/Technical Information Transaction Set (841) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to transmit or request specifications or technical information between trading partners. It can be used to transmit engineering change and engineering change requests. It can also be used to allow EDI trading partners the ability to exchange a complete or partial technical description of a product, process, service, etc. over the same path as any other EDI transaction. The detail area can include graphic, text, parametric, tabular, image, spectral, or audio data. A transmission includes identification information to assist the receiver in interpreting and utilizing the information included in the transaction.Further action as a consequence of the receipt and initial processing of the specification or other technical data may or may not require human intervention. The transmission and receipt of the data may require private agreement between the trading partners to automate the receipt of the data.The total transaction must be in the general form of all ASC X12 transactions so that an EDI computer system will be able to automatically recognize it as a Specification/Technical Information Transaction Set and pass it on for processing of the data itself. The transaction set is not media dependent.The detail area of the Specification/Technical Information Transaction Set provides a structure which allows for the exchange of a variety of specification information. For example, if the transaction contains information describing a complete assembly, it would be necessary to include the assembly model, the models for each of the individual parts, and the associated specifications. In the case of a process it may be necessary to transmit the specification of the product along with the specifications of the process and raw materials. This transaction set can also be linked to other transaction sets.This transaction set is not limited to a specific transmission protocol and uses other standards as applicable where they do not conflict with these requirements for specification transaction.

Notes:

1. The application name for this implementation convention is REQUEST FOR TECHNICAL INFORMATION.

2. This implementation convention is used by a contractor as a general request for technical information, as a request for technical information applicable to one or more solicitations, or as a request for technical information applicable to an active contract.

3. This implementation convention is also used by the government to request technical information from a contractor or from another government organization such as a technical data repository.

4. When used by a contractor, each request for technical information may contain only one type, e.g., a request for an Engineering Data Lists (EDL), a request for drawings, or a request for product support documents, e.g., specifications, standards, engineering change orders, technical manuals, a list of materials, etc.

Heading:

	Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat	Notes and Comments
Must Use	010	ST	Transaction Set Header	M	1		
			LOOP ID - SPI			>1	
Must Use	020	SPI	Specification Identifier	M	1		
N/U	030	RDT	Revision Date/Time	O	>1		
N/U	040	NTE	Note/Special Instruction	O	>1		
N/U	050	X1	Export License	O	1		
N/U	060	X2	Import License	O	1		
N/U	070	X7	Customs Information	O	1		
N/U	080	AMT	Monetary Amount	O	>1		

			LOOP ID - REF			>1
N/U	090	REF	Reference Identification	O	1	
N/U	100	DTM	Date/Time Reference	O	>1	
N/U	110	PER	Administrative Communications Contact	O	>1	
			LOOP ID - N1			>1
	120	N1	Name	O	1	
	130	N2	Additional Name Information	O	2	
	140	N3	Address Information	O	2	
	150	N4	Geographic Location	O	1	
	160	REF	Reference Identification	O	>1	
	170	PER	Administrative Communications Contact	O	>1	

Detail:

	Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat	Notes and Comments
			LOOP ID - HL			>1	
Must Use	010	HL	Hierarchical Level	M	1		n1, c1
			LOOP ID - SPI			>1	
	020	SPI	Specification Identifier	O	1		
	030	RDT	Revision Date/Time	O	>1		
N/U	033	PRR	Problem Report	O	>1		c2
N/U	034	PRT	Part Disposition	O	>1		c3
N/U	035	PRS	Part Release Status	O	1		c4
N/U	040	LIN	Item Identification	O	1		c5
N/U	045	N1	Name	O	>1		
N/U	046	PER	Administrative Communications Contact	O	>1		
N/U	050	MSG	Message Text	O	>1		
			LOOP ID - PID			>1	
N/U	060	PID	Product/Item Description	O	1		
N/U	065	PKD	Packaging Description	O	>1		
N/U	070	QTY	Quantity	O	>1		
N/U	074	MEA	Measurements	O	>1		
N/U	075	UIT	Unit Detail	O	>1		
N/U	076	LOC	Location	O	1		
N/U	077	PWK	Paperwork	O	>1		
			LOOP ID - PKG			>1	
N/U	078	PKG	Marking, Packaging, Loading	O	1		
N/U	079	MEA	Measurements	O	>1		
			LOOP ID - REF			>1	
	080	REF	Reference Identification	O	1		
N/U	090	DTM	Date/Time Reference	O	>1		
N/U	100	PER	Administrative Communications Contact	O	>1		
			LOOP ID - LX			>1	
N/U	103	LX	Assigned Number	O	1		
N/U	105	LIN	Item Identification	O	1		
N/U	107	TMD	Test Method	O	1		
N/U	110	MEA	Measurements	M	>1		
N/U	112	PSD	Physical Sample Description	O	>1		
N/U	114	SPS	Sampling Parameters for Summary Statistics	O	>1		

N/U	120	DTM	Date/Time Reference	O	>1		
N/U	130	REF	Reference Identification	O	>1		
			LOOP ID - EFI			>1	
	140	EFI	Electronic Format Identification	O	1		
Must Use	160	BIN	Binary Data	M	1		
			LOOP ID - CID			>1	
N/U	170	CID	Characteristic/Class ID	O	1		c6
N/U	180	UIT	Unit Detail	O	1		
N/U	190	TMD	Test Method	O	>1		
N/U	200	PSD	Physical Sample Description	O	1		
N/U	201	CSS	Conditional Sampling Sequence	O	1		n2
N/U	210	SPS	Sampling Parameters for Summary Statistics	O	1		
N/U	220	MSG	Message Text	O	>1		
			LOOP ID - MEA			>1	
N/U	230	MEA	Measurements	O	1		
N/U	240	DTM	Date/Time Reference	O	>1		
N/U	250	REF	Reference Identification	O	>1		
			LOOP ID - STA			>1	
N/U	260	STA	Statistics	O	1		
N/U	270	DTM	Date/Time Reference	O	>1		
N/U	280	REF	Reference Identification	O	>1		
			LOOP ID - CSF			>1	
N/U	282	CSF	Conditional Sampling Frequency	O	1		n3, c7
N/U	283	LS	Loop Header	O	1		
			LOOP ID - CID			>1	
N/U	284	CID	Characteristic/Class ID	O	1		n4, c8
N/U	285	MEA	Measurements	O	1		c9
N/U	286	STA	Statistics	O	1		c10
N/U	287	LE	Loop Trailer	O	1		
			LOOP ID - EFI			>1	
N/U	290	EFI	Electronic Format Identification	O	1		
N/U	310	BIN	Binary Data	M	1		

Summary:

	Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat	Notes and Comments
Must Use	010	SE	Transaction Set Trailer	M	1		

Transaction Set Notes

1. To be meaningful, at least one of the SPI, PID, REF, MEA, EFI or CID loops must be present with each occurence of the HL loop.
2. The sampling sequence specified in the CSS segment will take precedence over any other sampling rate (PSD03, PSD09, SPS06, CSF02, and CSF03) from the point the CSS01 event occurs until the specified sequence is completed.
   If no other sampling is specified, then only the sampling indicated in this segment is performed when the CSS01 event occurs.
3. The sampling rate specified is the CSF segment. It would take precedence over the normal sampling rate specified in PSD03 while the conditions of the CSF segment are satisfied, but would NOT take precedence over the sampling sequence activated by the proposed CSS segment.

If no other sampling rate is specified, then the only sampling indicated in the CSF segment is performed while the CSF conditions are met. Sampling will cease when the conditions are no longer met.
Conditional values specified in DE 740 (Range Minimum) will be interpreted as ``greater than or equal to this value." Values specified in DE 741 (Range Maximum) will be interpreted to mean ``less than or equal to this value."

4. Either the MEA segment or the STA segment must occur, but not both.

Transaction Set Comments

1. The HL segment may be used to define the hierarchical relationship of product-related specifications reported in the associated HL loop. Product-related specifications may refer to the product in its entirety or to subunits of the product. For example, if the top level refers to an assembly, the second-level HL segment may refer to parts or subassemblies of the top assembly. This pattern may be repeated as often as required.
2. The PRR segment contains the reason for an engineering change.
3. The PRT segment is used to describe what should be done with the parts or assemblies specified in the preceding SPI segment.
4. The PRS segment is used to tell the current status of the parts specified in the SPI segment required to make the change.
5. The repeated pairs of 234 and 234 data elements in the LIN segment can be used to list where this modified part or assembly is used.
6. The CID segment may be used to define either a general class of properties, such as physical properties, or an individual property within a class. The CID loop allows the user the ability to define specifications such as the properties of the item or class, the environmental conditions under which the specifications apply, the test methods to be used, and other parameters related to properties within the current HL hierarchical level.
7. Repetitions of the CSF loop allow several frequency changes (and the conditions that would trigger those changes) to be specified.
   If the conditions are such that several CSF values are activated at the same time, the value with the highest sampling rate shall prevail.
8. The CID loop within the CSF loop is used to specify the conditions that will trigger activation of the conditional value in the CSF segment.
   Repetitions of the CID loop will have an implied logical AND between the conditions set in each iteration.
9. The elements of the CID segment identify the conditional property. If the property is a measurement from within the manufacturing process of a plant environment, rather than the product, the segment also identifies the location where the measurements are to be observed.
10. If the condition is based on single test measurements, the MEA segment is used to specify the units of measure, and the open or closed numeric range of the conditional test.

Segment: **ST** **Transaction Set Header**
Position: 010
Loop:
Level: Heading
Usage: Mandatory
Max Use: 1
Purpose: To indicate the start of a transaction set and to assign a control number
Syntax Notes:
Semantic Notes: **1** The transaction set identifier (ST01) used by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the Invoice Transaction Set).
Comments:

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**ST01**	**143**	**Transaction Set Identifier Code** Code uniquely identifying a Transaction Set 841 X12.51 Specifications/Technical Information	**M ID 3/3**
Must Use	**ST02**	**329**	**Transaction Set Control Number** Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set *This unique control number is assigned by the originator of the transaction set. This same number is carried in SE02.*	**M AN 4/9**

Segment: **SPI** **Specification Identifier**
Position: 020
Loop: SPI
Level: Heading
Usage: Mandatory
Max Use: 1
Purpose: To provide a description of the included specification or technical data items
Syntax Notes: 1 If either SPI02 or SPI03 is present, then the other is required.
Semantic Notes:
Comments:

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	SPI01	786	**Security Level Code** Code indicating the level of confidentiality assigned by the sender to the information following *1. Use this data element to identify the highest level of protection (government or commercial) assigned to the requested information. Use the SPI segment at the Detail Level to indicate the protection level of individual items.* *2. If neither a government security classification nor a commercial protection requirement applies to the information, code 90 shall be cited.* 06 Supplier Proprietary 11 Competition Sensitive 90 Government Non-Classified 92 Government Confidential 93 Government Secret 94 Government Top Secret	**M ID 2/2**
Must Use	SPI02	128	**Reference Identification Qualifier** Code Qualifying the Reference Identification *USE OF THIS DATA ELEMENT IS REQUIRED.* TN Transaction Reference Number *Use to indicate the unique reference number of this transaction set. This number is assigned by the originator of the transaction set.*	**X ID 2/3**
Must Use	SPI03	127	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier *USE OF THIS DATA ELEMENT IS REQUIRED.*	**X AN 1/30**
Must Use	SPI07	353	**Transaction Set Purpose Code** Code identifying purpose of transaction set *USE OF THIS DATA ELEMENT IS REQUIRED.* 13 Request *Use to indicate a request for technical data.*	**O ID 2/2**
Must Use	SPI08	755	**Report Type Code** Code indicating the title or contents of a document, report or supporting item *USE OF THIS DATA ELEMENT IS REQUIRED.* 23 Contractual Plan *1. Use to indicate a request for a Technical Information Package (TIP), based on an active solicitation or contract under which the contractor is performing.*	**O ID 2/2**

2. This code is used only by a contractor.

24 Non-Contractual Plan

1. Use to indicate a request for a Technical Information Package (TIP), not based on an active solicitation or contract under which the contractor is performing.

2. This code is used only by a contractor.

AE Attachment

Use to indicate a miscellaneous request not applicable to any other listed code. When used, a cost is applicable to the information provided.

DW Drawing(s)

1. Use to indicate a request for a drawing, based on an active solicitation or contract under which the contractor is performing.

2. This code is used only by a contractor.

KD Engineering Drawing List

1. Use to indicate a request for an Engineering Data List (EDL), based on an active solicitation or contract under which the contractor is performing,

2. This code is used only by a contractor.

KE Purchased Engineering Data List

1. Use to indicate a request for an Engineering Data List (EDL), not based on an active solicitation or contract under which the contractor is performing.

2. This code is used only by a contractor.

KF Support Documents

1. Use to indicate a request for product support information, e.g., specifications, standards, engineering change orders, technical manuals, software application program, a list of materials or some other type of list, based on an active solicitation or contract under which the contractor is performing.

2. This code is used only by a contractor.

KG Purchased Documents

1. Use to indicate a request for product support information, e.g., specifications, standards, engineering change orders, technical manuals, software application program, a list of materials or some other type of list, not based on an active solicitation or contract under which the contractor is performing.

2. This code is used only by a contractor.

KI Purchased Drawings

1. Use to indicate a request for a drawing, not based on an active solicitation or contract under which the contractor is performing.

2. This code is used only by a contractor.

TO Demand Report

Use to indicate a request from one government activity to another for technical information.

VD Data Request for Vendor's Specifications or Drawings.

Use to indicate a request by a government activity to a vendor for technical information.

SPI09	**786**	**Security Level Code**	**O**	**ID**	**2/2**

Code indicating the level of confidentiality assigned by the sender to the information following

Use to identify that access to the requested data is restricted to certified contractors.

99	Government Defined (Trading Partner Level) *Use to indicate data access is restricted to certified contractors. When used provide the certified contractor's certification number in the 1/REF/160 segment.*

Segment: **N1** **Name**
Position: 120
Loop: N1
Level: Heading
Usage: Optional
Max Use: 1
Purpose: To identify a party by type of organization, name, and code
Syntax Notes: 1 At least one of N102 or N103 is required.
2 If either N103 or N104 is present, then the other is required.
Semantic Notes:
Comments: 1 This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party.
2 N105 and N106 further define the type of entity in N101.
Notes: *Whenever possible, identification and address information should be provided using N101, N103, and N104. Use N102 and segments N2 through N4, as applicable, when this information cannot be provided by using one of the codes listed in N103.*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**N101**	**98**	**Entity Identifier Code** Code identifying an organizational entity, a physical location, or an individual BY Buying Party (Purchaser) *Use to indicate a government activity that is originating a request for technical information.* KY Technical Office *Use to indicate a government activity that is the recipient of a request for technical information.* SE Selling Party *Use to indicate a commercial party that is either originating or receiving a request for technical information.* ZD Party to Receive Reports *Use to indicate the party to whom the technical information is to be sent if different than the requesting party.*	**M ID 2/2**
	N102	**93**	**Name** Free-form name *When N101 is code ZD, use to provide the name of the party to receive the technical information if that party cannot be identified by a code in N103/04.*	**X AN 1/35**
	N103	**66**	**Identification Code Qualifier** Code designating the system/method of code structure used for Identification Code (67) *While the federal EDI program uses the DUNS number, other government users of this implementation convention may require the use of other and additional numbers for a transition period in order to cross reference existing data bases.* 1 D-U-N-S Number, Dun & Bradstreet *Use of the DUNS and DUNS +4 number is preferred over other codes to identify an entity.* 9 D-U-N-S+4, D-U-N-S Number with Four Character Suffix *Use of the DUNS and DUNS +4 number is preferred over other codes to identify an entity.* 10 Department of Defense Activity Address Code (DODAAC)	**X ID 1/2**

33 Commercial and Government Entity (CAGE)

N104	**67**	**Identification Code**	**X**	**AN**	**2/20**
		Code identifying a party or other code			

Segment: **N2** **Additional Name Information**
Position: 130
Loop: N1
Level: Heading
Usage: Optional
Max Use: 2
Purpose: To specify additional names or those longer than 35 characters in length
Syntax Notes:
Semantic Notes:
Comments:
Notes: *This segment should only be used when N102 is used and it is necessary to provide additional name information.*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
Must Use	N201	93	Name Free-form name	M	AN	1/35
	N202	93	Name Free-form name	O	AN	1/35

Segment: N3 **Address Information**
Position: 140
Loop: N1
Level: Heading
Usage: Optional
Max Use: 2
Purpose: To specify the location of the named party
Syntax Notes:
Semantic Notes:
Comments:
Notes: *This segment should only be used when N102 is used.*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
Must Use	N301	166	**Address Information** Address information	M	AN	1/35
	N302	166	**Address Information** Address information	O	AN	1/35

Segment: **N4** **Geographic Location**
Position: 150
Loop: N1
Level: Heading
Usage: Optional
Max Use: 1
Purpose: To specify the geographic place of the named party
Syntax Notes: 1 If N406 is present, then N405 is required.
Semantic Notes:
Comments: 1 A combination of either N401 through N404, or N405 and N406 may be adequate to specify a location.
2 N402 is required only if city name (N401) is in the U.S. or Canada.
Notes: *This segment should only be used when N102 is used.*

Data Element Summary

Ref. Des.	Data Element	Name	Attributes		
N401	**19**	**City Name** Free-form text for city name	**O**	**AN**	**2/30**
N402	**156**	**State or Province Code** Code (Standard State/Province) as defined by appropriate government agency	**O**	**ID**	**2/2**
N403	**116**	**Postal Code** Code defining international postal zone code excluding punctuation and blanks (zip code for United States)	**O**	**ID**	**3/15**
N404	**26**	**Country Code** Code identifying the country	**O**	**ID**	**2/3**

Segment: **REF** **Reference Identification**
Position: 160
Loop: N1
Level: Heading
Usage: Optional
Max Use: >1
Purpose: To specify identifying information
Syntax Notes: 1 At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes: 1 REF04 contains data relating to the value cited in REF02.
Comments:
Notes: *When N101 is code SE and the selling party is requesting technical data, use this segment to identify reference numbers applicable to the selling party.*

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes		
Must Use	REF01	128	**Reference Identification Qualifier** Code Qualifying the Reference Identification		M	ID	2/3
			0C	Certification Number *When SPI09 in the 1/SPI/020 segment is code 99 and N101 is code SE, (a commercial party is requesting technical information), use to indicate the certification number assigned to a selling party to permit access to restricted drawings.*			
			EL	Electronic device pin number *1. Use to indicate the identification number assigned to a contractor at the time of registration.* *2. Use of this code is REQUIRED when a contractor is requesting information restricted to certified contractors.*			
			TJ	Federal Taxpayer's Identification Number			
			W7	Commercial and Government Entity (CAGE) Code *When N101 is code SE and the selling party is requesting technical information, use to indicate the CAGE code of the selling party if N103 is other than code 33.*			
	REF02	127	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier		X	AN	1/30

Segment: **PER** **Administrative Communications Contact**
Position: 170
Loop: N1
Level: Heading
Usage: Optional
Max Use: >1
Purpose: To identify a person or office to whom administrative communications should be directed
Syntax Notes:
1 If either PER03 or PER04 is present, then the other is required.
2 If either PER05 or PER06 is present, then the other is required.
3 If either PER07 or PER08 is present, then the other is required.
Semantic Notes:
Comments:

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
Must Use	**PER01**	**366**	**Contact Function Code** Code identifying the major duty or responsibility of the person or group named IC Information Contact *Use to indicate the requester's point of contact.*	**M**	**ID**	**2/2**
	PER02	**93**	**Name** Free-form name *1. Use to provide the name of the point of contact.* *2. Cite last name first followed by first name. If the whole name is longer than 35 characters, truncate or use initials for the first name.*	**O**	**AN**	**1/35**
	PER03	**365**	**Communication Number Qualifier** Code identifying the type of communication number AU Defense Switched Network EM Electronic Mail FT Federal Telecommunications System (FTS) FX Facsimile IT International Telephone TE Telephone *Use to indicate a commercial telephone number. Include the area code.*	**X**	**ID**	**2/2**
	PER04	**364**	**Communication Number** Complete communications number including country or area code when applicable	**X**	**AN**	**1/80**
	PER05	**365**	**Communication Number Qualifier** Code identifying the type of communication number *Use to identify a second communication number for the party cited in PER02. For example, if PER03/04 cites a telephone number, PER05/06 could cite a FAX number.* AU Defense Switched Network EM Electronic Mail EX Telephone Extension *Use only if PER03 cites code TE.* FT Federal Telecommunications System (FTS) FX Facsimile IT International Telephone TE Telephone *Use to indicate a commercial telephone number. Include the area code.*	**X**	**ID**	**2/2**

PER06	**364**	**Communication Number**	**X**	**AN**	**1/80**
		Complete communications number including country or area code when applicable			
PER07	**365**	**Communication Number Qualifier**	**X**	**ID**	**2/2**
		Code identifying the type of communication number			
		Use to identify a third communication number for the party cited in PER02.			
		AU Defense Switched Network			
		EM Electronic Mail			
		EX Telephone Extension			
		Use only if PER05 cites code TE.			
		FT Federal Telecommunications System (FTS)			
		FX Facsimile			
		IT International Telephone			
		TE Telephone			
		Use to indicate a commercial telephone number. Include the area code.			
PER08	**364**	**Communication Number**	**X**	**AN**	**1/80**
		Complete communications number including country or area code when applicable			
PER09	**443**	**Contact Inquiry Reference**	**O**	**AN**	**1/20**
		Additional reference number or description to clarify a contact number			
		Use to identify the title or office symbol of the party identified in PER02.			

Segment: **HL** **Hierarchical Level**
Position: 010
Loop: HL
Level: Detail
Usage: Mandatory
Max Use: 1
Purpose: To identify dependencies among and the content of hierarchically related groups of data segments
Syntax Notes:
Semantic Notes:
Comments:
1 The HL segment is used to identify levels of detail information using a hierarchical structure, such as relating line-item data to shipment data, and packaging data to line-item data.
2 HL01 shall contain a unique alphanumeric number for each occurrence of the HL segment in the transaction set. For example, HL01 could be used to indicate the number of occurrences of the HL segment, in which case the value of HL01 would be "1" for the initial HL segment and would be incremented by one in each subsequent HL segment within the transaction.
3 HL02 identifies the hierarchical ID number of the HL segment to which the current HL segment is subordinate.
4 HL03 indicates the context of the series of segments following the current HL segment up to the next occurrence of an HL segment in the transaction. For example, HL03 is used to indicate that subsequent segments in the HL loop form a logical grouping of data referring to shipment, order, or item-level information.
5 HL04 indicates whether or not there are subordinate (or child) HL segments related to the current HL segment.

Notes: *When requesting multiple items that may or may not have a hierarchical relationship, repeat the HL loop as many times as required to specify all levels and use as many iterations of the HL, SPI, and REF loops as necessary.*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**HL01**	**628**	**Hierarchical ID Number** A unique number assigned by the sender to identify a particular data segment in a hierarchical structure *This is a unique and progressive number assigned by the originator of the transaction set starting with the number 1 and following with whole numbers 2, 3, 4, etc.*	**M AN 1/12**
	HL02	**734**	**Hierarchical Parent ID Number** Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to *Use of this data element is REQUIRED when the current HL segment is subordinate to another HL segment. For example, the second HL segment may be subordinate to the first HL segment, therefore, the number 1 would be cited; or the sixth HL segment may be subordinate to the fourth HL segment, therefore, the number 4 would be cited. If an HL segment is not subordinate to another HL segment, this data element is left blank.*	**O AN 1/12**
Must Use	**HL03**	**735**	**Hierarchical Level Code** Code defining the characteristic of a level in a hierarchical structure *Use any appropriate listed code to indicate the hierarchical level of the requested information.* A Assembly DG Drawing ED Engineering Data List F Component FR Frame *Use to indicate a drawing sheet frame.*	**M ID 1/2**

			I	Item			
				1. Use to indicate an item technical information package (TIP). The TIP includes EDLs, drawings, specifications, standards, etc. and may also contain a statement of work (SOW).			
				2. This code may only be used when SPI08 in the 1/SPI/020 segment is code 23, 24, TO, and VD.			
			IB	Contract			
			SD	Support Document			
				Use to indicate a specification, standard, engineering change order, bill of materials, technical manual, software application, or other type of list.			
			SH	Sheet			
				Use to indicate a drawing sheet.			
			SL	Solicitation			
			SY	System			
			U	Subassembly			
			ZZ	Mutually Defined			
				1. Use to indicate a miscellaneous hierarchical level that cannot be identified by use of any other listed code. When used, this is a stand alone hierarchical level, i.e., it may not be subordinate to any other hierarchical level and cannot have any subordinate hierarchical levels.			
				2. This code is only used when SPI08 in the 1/SPI/020 segment is code AE.			
Must Use	**HL04**	**736**	**Hierarchical Child Code**		**O**	**ID**	**1/1**
			Code indicating if there are hierarchical child data segments subordinate to the level being described				
			1. Use to identify whether or not there are subordinate HL segments.				
			2. Use of this data element is REQUIRED.				
			Refer to 003060 Data Element Dictionary for acceptable code values.				

Segment: **SPI** **Specification Identifier**
Position: 020
Loop: SPI
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To provide a description of the included specification or technical data items
Syntax Notes: 1 If either SPI02 or SPI03 is present, then the other is required.
Semantic Notes:
Comments:
Notes: *Use this segment to provide identifying reference numbers for the hierarchical level specified in the HL segment and to identify the government security classification or commercial protection level applicable to the referenced item.*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	SPI01	786	**Security Level Code** Code indicating the level of confidentiality assigned by the sender to the information following *1. Use this data element to identify the highest level of protection (government or commercial) assigned to the requested information.* *2. If neither a government security classification nor a commercial protection requirement applies to the information, code 90 shall be cited.* *3. The identified security classification or commercial protection level represents the highest classification within the specified hierarchical level.* 06 Supplier Proprietary 11 Competition Sensitive 90 Government Non-Classified 92 Government Confidential 93 Government Secret 94 Government Top Secret	M ID 2/2
	SPI02	128	**Reference Identification Qualifier** Code Qualifying the Reference Identification *Use to identify, by a number, an item represented by the hierarchical level specified in the preceding HL segment.* 7K List of Materials *1. Use to indicate a List of Materials (LOM) or a Bill of Materials (BOM) number. Identify the vendor or contractor applicable to the LOM or BOM in the 2/REF/080 segment citing either code W7 or ZZ in REF01.* *2. Use, if applicable, when HL03 is code SD.* 7M Frame *1. Use to indicate a drawing sheet frame number.* *2. Use when HL03 is code FR.* 7P Sheet *1. Use to indicate a drawing sheet number.* *2. Use when HL03 is code SH.* 7Q Engineering Change Order *1. Use to indicate an Engineering Change Order number.*	X ID 2/3

2. Use, if applicable, when HL03 is code SD.

89 Assembly Number

Use when HL03 is code A.

90 Subassembly Number

Use when HL03 is code U.

97 Package Number

1. Use to indicate a Technical Information Package (TIP).

2. Use when HL03 is code I.

CT Contract Number

Use when HL03 is code IB.

DG Drawing Number

Use when HL03 is code DG. Identify the contractor applicable to the drawing in the 2/REF/080 segment citing either code W7 or ZZ in REF01.

HF Engineering Data List

1. Use to indicate a Engineering Data List (EDL) number. Identify the manufacturer applicable to the EDL in the 2/REF/080 segment using code W7 or ZZ in REF01.

2. Use when HL03 is code ED.

IX Item Number

1. Use to indicate the number of a component.

2. Use when HL03 is code F.

KS Solicitation

1. Use to indicate the solicitation Technical Information Package number.

2. Use when HL03 is code SL.

MU Military Specification (MILSPEC) Number

Use when HL03 is code SD.

NI Military Standard (MIL-STD) Number

Use, if applicable, when HL03 is code SD.

NJ Technical Document Number

1. Use to indicate the number of a technical manual.

2. Use, if applicable, when HL03 is code SD.

S3 Specification Number

1. Use to indicate a contractor specification number. Identify the contractor in the 2/REF/080 segment using code W7 or ZZ in REF01.

2. Use, if applicable, when HL03 is code SD.

VW Standard

1. Use to indicate a contractor standard number. Identify the contractor in the 2/REF/080 segment citing either code W7 or ZZ in REF01.

2. Use, if applicable, when HL03 is code SD.

W2 Weapon System Number

1. Use to indicate the number of a system.

2. Use when HL03 is code SY.

WF Locally Assigned Control Number

1. Use to indicate another type of list, e.g., list of circuits that comprise a network. Identify the type of list, by name, in SPI04.

2. Use, if applicable, when HL03 is code SD.

ZS Software Application Number

1. Use to indicate a software application. If applicable, identify the contractor applicable to the software application in the 2/REF/080 segment citing either code W7 or ZZ in REF01.

2. Use, if applicable, when HL03 is code SD.

ZZ Mutually Defined

1. Use to indicate another type of reference number not associated with any other code. When used, a number or name must be cited in SPI03. SPI04 should be used, if necessary, to further identify the referenced item.

2. This code will typically be used when HL03 is code ZZ.

SPI03	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X**	**AN**	**1/30**
SPI04	**790**	**Entity Title** Title of the data entity *1. When HL03 is code ZZ, use to identify, by name, the item applicable to the hierarchical level.* *2. If necessary, use to identify the noun name applicable to any item number cited in SPI03.*	**O**	**AN**	**1/132**
SPI09	**786**	**Security Level Code** Code indicating the level of confidentiality assigned by the sender to the information following *Use to identify that access to the identified information is restricted to certified contractors.* 99 Government Defined (Trading Partner Level) *Use to indicate information access is restricted to certified contractors.*	**O**	**ID**	**2/2**

Segment: **RDT** **Revision Date/Time**
Position: 030
Loop: SPI
Level: Detail
Usage: Optional
Max Use: >1
Purpose: To specify the revision level of the electronic data item
Syntax Notes:
1 If RDT01 is present, then RDT02 is required.
2 If RDT03 is present, then at least one of RDT04 or RDT05 is required.
3 If RDT06 is present, then RDT05 is required.
Semantic Notes:
Comments:
Notes: *This segment is used to identify a revision or a version of the data item cited in SPI03. If multiple revisions or versions are being requested and they cannot be identified by use of the specific words in RDT02, use as many repetitions of the RDT segment as required to identify them.*

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
RDT01	**795**	**Revision Level Code** Code indicating the revision or engineering change level of the data items referred to by the specification number E Revision Level *Use, if applicable, to indicate a revision of any document, e.g., drawing, standard, specification, etc.* H Version Level *Use when SPI02 is code ZS.*	**O ID 1/1**
RDT02	**796**	**Revision Value** Revision or engineering change level of the data items referred to by the specification number *Cite the actual number or letter of the revision/version or one of the appropriate following words to indicate the requested revision:* *"Latest": to indicate the latest revision/version is requested.* *"All": to indicate all revisions/versions are requested.* *"After": to indicate all revisions/versions after the date specified in RDT04 are requested.*	**X AN 1/30**
RDT03	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time *1. Use only to identify the date of a specific revision/version.* *2. This data element is REQUIRED when RDT02 cites the word "After".* 171 Revision *Use to indicate the date of the requested revision.* 824 Version *Use to indicate the date of the requested version.*	**O ID 3/3**
RDT04	**373**	**Date** Date (YYMMDD)	**X DT 6/6**

Segment: **REF** **Reference Identification**
Position: 080
Loop: REF
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify identifying information
Syntax Notes: **1** At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes: **1** REF04 contains data relating to the value cited in REF02.
Comments:
Notes: *Use this segment to identify reference numbers applicable to the data item cited in SPI03 of the same HL loop.*

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes		
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code Qualifying the Reference Identification		**M**	**ID**	**2/3**
			7S	Drawing Type *Use to indicate a type of drawing, e.g., assembly, interpretation, installation, etc. Identify the type of drawing in REF03*			
			83	Extended (or Exhibit) Line Item Number (ELIN) *Use to indicate an exhibit line item in either a contract or a solicitation.*			
			C7	Contract Line Item Number *Use to indicate a line item in either a contract or a solicitation.*			
			L6	Subcontract Line Item Number *Use to indicate a sub line item in either a contract or a solicitation.*			
			W7	Commercial and Government Entity (CAGE) Code *Use only when SPI02 in the 2/SPI/020 segment is code 7K, DG, S3, VW, or ZS.*			
			ZZ	Mutually Defined *1. Use to indicate a DUNS number or a DUNS+4 number.* *2. Use only when SPI02 in the 2/SPI/020 segment is code 7K, DG, S3, VW, or ZS.*			
	REF02	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier		**X**	**AN**	**1/30**
	REF03	**352**	**Description** A free-form description to clarify the related data elements and their content *When REF01 is code 7S, use to identify the type of drawing.*		**X**	**AN**	**1/80**

Segment: **EFI** **Electronic Format Identification**
Position: 140
Loop: EFI
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To provide basic information about the electronic format of the interchange data
Syntax Notes:
1 If EFI05 is present, then EFI04 is required.
2 If EFI07 is present, then EFI06 is required.
3 If EFI09 is present, then EFI08 is required.
4 If either EFI15 or EFI16 is present, then the other is required.
Semantic Notes:
Comments:
Notes: *Use this segment to identify the media and format in which the requested data is to be provided.*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
Must Use	**EFI01**	786	**Security Level Code** Code indicating the level of confidentiality assigned by the sender to the information following *Use only the listed code to comply with the mandatory nature of this data element.* 05 Personal	**M**	**ID**	**2/2**
	EFI02	933	**Free-Form Message Text** Free-form message text *Use to identify the requested media in which the item is to be provided. Use only the following words:* *NET - to indicate transmission via the DoD network architecture* *CD-ROM - to indicate data will be written to a CD-ROM and delivered by mail* *CARD - to indicate an aperture card will be produced and delivered by mail* *PAPER - to indicate a hard copy will be produced and delivered by mail*	**O**	**AN**	**1/264**
	EFI06	799	**Version Identifier** Revision level of a particular format, program, technique or algorithm *Use to identify the version of the format requested in EFI07.*	**X**	**AN**	**1/30**
	EFI07	801	**Interchange Format** Industry or proprietary standard used to identify the format of the data *Use to identify the requested format in which the item is to be provided. When the data format is one of the formats in the following list, use the associated code. Other values may be used only if mutually agreed between the trading partners.* *CODE FORMAT* *ANSI ANSI Text - (entire ANSI character set))* *ASCII ASCII TEXT - (letters and numerals only)* *BMP Windows Bitmap* *C4 JEDMICS proprietary format* *dBASE Borland dBASE* *EXCEL Microsoft Excel* *GIF Graphics Interchange Format* *Harvard Software Publishing Company Harvard Graphics* *HTML HyperText Markup Language* *ISO-10918 Joint Photographics Expert Group (JPEG) - Lossy*	**O**	**AN**	**1/30**

	compression of photographic images
KODAK	*Kodak Photo-CD format*
LOTUS	*Lotus 123*
MAC	*MacIntosh Apple Application Program*
MSDOS	*Microsoft DOS Application Program*
MIL-D-28000	*IGES format*
MIL-R-28001	*SGML*
MIL-R-28002	*CALS/Raster format*
MIL-D-28003	*Computer Graphics Metafile (CGM)*
ISO-11172	*Motion Pictures Experts Group (MPEG) - Lossy compression of video*
PDES	*Product Data Exchange Standard - STEP*
PDF	*Adobe Portable Document Format*
PPOINT	*Microsoft Powerpoint*
PROJECT	*Microsoft Project*
RTF	*Rich Text Format*
TIFF	*Tagged Interchange File Format*
WINDOWS	*Microsoft Windows Application Program*
WORD	*Microsoft Word*
WORDP	*Novell WordPerfect*

Segment: **BIN** **Binary Data**
Position: 160
Loop: EFI
Level: Detail
Usage: Mandatory
Max Use: 1
Purpose: To transfer binary data in a single data segment and allow identification of the end of the data segment through a count; there is no identification of the internal structure of the binary data in this segment
Syntax Notes:
Semantic Notes:
Comments:
Notes: *Use only to comply with the mandatory nature of this segment.*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
Must Use	BIN01	784	**Length of Binary Data** The length in integral octets of the binary data *Cite the number one (1) to comply with the mandatory nature of this data element.*	M	N0	1/15
Must Use	BIN02	785	**Binary Data** A string of octets which can assume any binary pattern from hexadecimal 00 to FF *Cite the number zero (0) to comply with the mandatory nature of this data element.*	M	B	1/1

Segment: **SE** **Transaction Set Trailer**
Position: 010
Loop:
Level: Summary
Usage: Mandatory
Max Use: 1
Purpose: To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments)
Syntax Notes:
Semantic Notes:
Comments: 1 SE is the last segment of each transaction set.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
Must Use	**SE01**	**96**	**Number of Included Segments** Total number of segments included in a transaction set including ST and SE segments	**M**	**N0**	**1/10**
Must Use	**SE02**	**329**	**Transaction Set Control Number** Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set *Cite the same number carried in ST02.*	**M**	**AN**	**4/9**

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